



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 16, 2009

Mr. Larry Graig, Superintendent
Solid Waste Division
Public Works Department
P.O. Box 3729
Sanford, NC 27331-3729

Subject: City of Sanford
A Large Type-3 Solid Waste Composting Facility
Permit Application And Operations Manual
Facility Permit No.: SWC-53-03

Dear Mr. Craig:

The Division of Waste Management Solid Waste Section has completed its technical review of the subject Permit Application and Operations Manual. A copy of the comments resulting from this review is attached for your reference. These comments are also being sent to your engineer, Victor I. Czar, P.E. of City of Sanford, by copy of this letter. A technical response, along with a revised Permit Application and Operations Manual that incorporate responses to these comments, should be submitted for our review and approval as soon as possible. Providing thorough and complete responses to these comments in a timely manner is necessary to avoid delays of the Division's decision on the Permit Application.

If you or your engineer have any question or need assistance in resolving the technical review issues, please contact Mr. Zi-Qiang Chen, PhD, at (919)-508-8523. Also, you may contact me at (919)-508-8508.

Sincerely,

Michael E. Scott, Supervisor
Composting & Land Application Branch

ZQC:dr

Attachment (all cc's)

cc: Victor Czar, P.E., PO Box 338, Sanford, NC 27330
Brad Bailey, NCDWM Field Operations Branch
Zi-Qiang Chen, Ph.D., Environmental Engineer II
DWM/SWS/CLA/PERMIT

CITY OF SANFORD

Technical Review Comments For A Large Type-3 Solid Waste Composting Facility Permit Application And The Facility's Operational Procedures Manual Facility Permit No.: SWC-53-03

December 16, 2009

NOTE: Please provide a response to all of the comments on a "comment for comment" basis. Where appropriate, add or revise narrative in the text of both the Permit Application (§) and the Facility's Operational Procedures Manual (§§) that addresses the issues discussed in the comments. In addition, the comments and responses may be included as a part of the revised Permit Application and Operations Manual (e.g. in an appendix).

I. General

1. Rule .1401 (b) stipulates that plans for a large type-3 composting facility shall be submitted in accordance with Rule .0202(a)(3) and that a minimum of four sets of (final-version) application and drawing sheets shall be submitted.
2. Provide an Executive Summary of the scope of changes within the permit renewal application and operations manual.
3. Provide a Table of Contents for the permit application and operational manual, including the corresponding page numbers for all the chapters and section, as well as figures, tables, and appendices.
4. Number all the pages accordingly throughout the entire body of the text of the Permit Application and Operational Manual. All the pages in an Appendix or attachment shall be numbered accordingly as well.
5. In accordance with NCGS 130A-295.8(c), a large composting facility shall pay a fee of \$1,250 for its permit renewal.

II. Permit Application Section

1. Page 1 of 36: The aerial photograph needs be sealed and dated by the engineer.
2. Page 2 of 36: Confirm that the zoning for the composting facility and its vicinity land has not been changed since 1992 when the tract of land was initially granted to the facility by the city of Sanford.

III. Operational Procedures Section

1. Page 2 of 7, Exhibit “A” and Process Flow Diagram: Insert the procedure of “Compost Testing” to both Exhibit A and process flow diagram.
2. Page 3 of 7: Insert a sample Temperature Logging Sheet in this section and demonstrate how the temperature, especially the federal PFRP and VAR temperature regimes, is identified, maintained, and recorded correctly at this facility.
3. Page 3 of 7: Add a section of narratives to delineate how the finished compost is tested at the facility.
4. Page 7 of 7, Section §F: Add a narrative to describe how un-used feedstocks, such as chicken manure, are occasionally kept overnight or over-weekend at the facility.
5. Page 7 of 7, Section §G, Exhibit C, and Page 9 of 36, Section §.1405: Add “*review and sign the facility’s temperature logging sheets*” in the composting coordinator’s job description.
6. Page 18 of 36, Section §.1405(b)(7)(D): Provide a typical recipe and the preliminary calculation to demonstrate how the currently adopted leaves-vs-manure unit ratio represents the adequate range of C:N ratio (20:1 to 40:1) for effective composting in the facility.
7. Page 25 of 36, Section §.1405(b)(7)(K): Add chicken manure in the list of the composting materials processed in the facility.
8. Page 25 of 36, Section §.1405(b)(7)(K): It is recommended that the facility add a storm-runoff device – Compost Sox around the perimeter of the active composting area of the facility.
9. Page 27 of 36, Section §.1405(b)(8): Add the regular testing schedule in this section.

IV. Operations/Procedures Manual (§§)

1. Page 5 of Appendix B, sub-page 2 of 3, Table of “Quality Assurance Plan”: Add “less than 1000 MPN per gram of dry sample (for Fecal Coliform)”, and “less than 3 MPN per 4 grams of dry sample (for Salmonella)” respectively in the according “Sample Type” boxes.

2. Page 13, §§Annual Report: Both semi-annual testing (or every 20,000 tons of compost product) and annual report shall include the tested pathogen (fecal coliform and/or salmonella) concentrations and manmade inerts (%).
3. Page 32 of 36, §§.1405(e)(4): Provide the facility's capacities , in tonnage, of its active composting, curing, and finished product storage; and add these numbers in the facility's Process Flow Diagram(s) accordingly.
4. Page 33 of 36, §§.1405(f)(5): Provide a cross-section drawing to show the active compost piles' layout and relationship.
5. Page 32 of 36, §§.1405(f)(5): Update the drawing to reflect the fact that the windrows 8 through 11 are not used for active composting.